

1 **APPARATUS AND METHOD FOR TRANSMITTING TERRESTRIAL SIGNALS**
2 **ON A COMMON FREQUENCY WITH SATELLITE TRANSMISSIONS**

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4 **ABSTRACT OF THE INVENTION**

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6 A first antenna (16) at a user location (14) receives signals at a first frequency where the
7 signals are travelling only within a first directional reception range as measured from a centerline
8 (28) of the first antenna (16). The first antenna (16) has its centerline (28) aligned to receive direct
9 broadcast satellite signals transmitted from a satellite in geosynchronous orbit about the earth. A
10 second antenna (18) at the user location (14) receives signals at the first frequency where the
11 signals are travelling only within a second directional reception range as measured from a
12 centerline (30) of the second antenna (18). The second antenna (18) is aligned to receive signals
13 transmitted at the first frequency from a terrestrial transmitting location remote from the user
14 location. A terrestrial transmitter transmits signals at the first frequency and directionally within
15 a terrestrial azimuth range from the terrestrial transmitting location. The terrestrial transmitting
16 location is located with respect to the user location (14) such that the terrestrial transmitter (20)
17 transmits in directions only outside of the directional reception range of the first antenna (16). The
18 satellite (12) is positioned with respect to the user location (14) such that the satellite transmits
19 directional in directions outside of the directional reception range of the second antenna (18).